REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested. Claims 1-16 remain pending, wherein claims 9 and 10 have been amended.

Applicants note with appreciation the Examiner's acceptance of the drawings filed on December 31, 2001. Applicants also appreciate the Examiner's acknowledgment of Applicants' claim for foreign priority, and that all of the certified copies of the priority documents have been received.

Applicants note with appreciation the Examiner's consideration of the document cited in the Information Disclosure Statement filed on January 10, 2003. Applicants note that a second Information Disclosure Statement was filed on March 13, 2003, but consideration of the documents cited therein has not been indicated. For the Examiner's convenience, a copy of the form PTO-1449 which accompanied the Information Disclosure Statement filed on March 13, 2003, and a copy of the date stamped postcard acknowledging receipt of such by the Patent Office are enclosed.

In the second paragraph of the Office Action, claims 9, 10, 15 and 16 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. This ground of rejection is respectfully traversed.

The Office Action asserts that the phrases "double-layer structure" and "pseudo double-layer structure" render claims 9, 10, 15 and 16 indefinite. Specifically, the Office Action asserts that the distinction between these structures is not clear and that the composition of these structures are not clear.

As discussed MPEP § 2173.01, "Applicants are their own lexicographers." Further, as discussed in MPEP § 2173.02, in determining whether claims comply with the definiteness requirement of 35 U.S.C. § 112, second paragraph, the claim language must be analyzed in light of content of the application disclosure, the teachings of the prior art, and the claim interpretation that would have been given by one of ordinary skill in the pertinent art.

The present application, at page 3, lines 12-17, generally describes single-layer structures, double-layer structures, and pseudo double-layer structures. Examples of each of these three different structures are described in detail on page 6, line 9 through page 9, line 8 of the present application. Additionally, it is respectfully submitted that the usage of the phrase "double-layer structure" and "pseudo double-layer structure" in Applicants' claims is consistent with the interpretation that would have been given by one of ordinary skill in this particular art at the time the invention was made. Since the present application as filed clearly describes a "double-layer structure" and a "pseudo double-layer structure" and this is consistent with the interpretation that one of ordinary skill in the art at the time of the invention would have given to these terms, it is respectfully submitted that these claims are definite.

With regard to the lack of antecedent basis rejection of claims 9 and 10, these claims have been amended to provide antecedent basis, and hence, it is respectfully submitted that these claims are not indefinite for lack of antecedent basis.

For at least those reasons stated above it is respectfully requested that the rejection of claims 9, 10, 15 and 16 under 35 U.S.C. § 112, second paragraph, be withdrawn.

In the fourth paragraph of the Office Action, claims 1-16 are rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,541,125 to Futamoto et al. ("Futamoto"). This ground of rejection is respectfully traversed.

Prior to addressing this ground of rejection in detail, a brief summary of exemplary embodiments of the present invention are provided to highlight advantageous characteristics thereof. Conventionally, longitudinal magnetic recording (LMR) was employed in hard disk drives. One deficiency of LMR techniques is the super paramagnetic effect. To overcome the super paramagnetic effect, LMR techniques have been replaced by perpendicular magnetic recording (PMR) techniques for hard disk drives.

In a conventional PMR medium, as illustrated in figure 1a of the present application, an underlayer is disposed below a PMR layer to promote perpendicular magnetic orientation of the PMR layer. Conventionally, the underlayer is formed of titanium while the PMR layer is formed of Co alloy which results in a mismatch between the lattice constants. When the lattice constant mismatch becomes larger, a perpendicular magnetic degradation layer is formed on the titanium underlayer in the course of crystal growth of the Co alloy PMR layer which reduces the thickness of the crystalline PMR layer and results in degraded magnetic properties of PMR layer with low signal-to-noise ratios. To overcome the above-identified and other deficiencies of conventional PMR mediums, the present invention employs a perpendicular magnetic recording medium in which a perpendicular magnetic enhancement layer having a thickness of 15 nm or greater deposited between a substrate and a perpendicular magnetic recording layer. The perpendicular magnetic enhancement layer is formed of a metal with excellent

perpendicular orientation properties. The metal can be Pt, Au, Pd, or an alloy of these materials. Additionally, as illustrated in figure 3 of the present application, the structure of Pt is face-centered cubic (fcc).

Futamoto does not anticipate Applicants' claim 1 because *Futamoto* does not disclose all of the elements of Applicants' claim 1. For example, *Futamoto* does not disclose that "a perpendicular magnetic enhancement layer" as recited in Applicants' claim 1.

Futamoto discloses a magnetic recording medium. As illustrated in figure 1 of *Futamoto*, the magnetic recording medium includes, among other elements, a magnetic film 14, an upper underlayer 12b, a lower underlayer 12a and a substrate 11. *Futamoto* discloses that the upper underlayer is comprised of a Co-Cr_x-M_y alloy. This type of alloy has a hexagonal close-packed (hcp) structure. It is respectfully submitted that due to the hcp structure of the upper underlayer 12b of *Futamoto*, the upper underlayer cannot be interpretated as anticipating Applicants' claimed "perpendicular magnetic enhancement layer." Accordingly, it is respectfully submitted that *Futamoto* does not disclose "a perpendicular magnetic enhancement layer" as recited in Applicants' claim 1. Since *Futamoto* does not disclose all of the elements of Applicants' claim 1, *Futamoto* cannot anticipate Applicants' claim 1. Claims 2-8 and 11-15 variously depend from Applicants' claim 1, and are, therefore, not anticipated by *Futamoto* for at least those reasons stated above with regard to Applicants' claim 1.

For at least those reasons stated above, it is respectfully requested that the rejection of claims 1-16 as allegedly being anticipated by *Futamoto* be withdrawn.

All outstanding objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance. Notice to this effect is earnestly solicited. If there are any questions regarding this response, or the application in general, the Examiner is encouraged to contact the undersigned at 703-838-6578.

Respectfully submitted,

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